

Comments of Dr. Milton Mueller, Rutgers University.

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"Universal Service": an ambiguous legacy.

The idea of universal telecommunications service invokes two reactions. On the one hand, the idea of extending information infrastructure to everyone is a grand one. On the other hand, we must not forget that our current approach to universal service policy was invented by telephone monopolies as a way of scaring regulators and legislators into protecting themselves from competition.¹

Some of us hoped that the new Telecommunications Act would put an end to the era of regulated monopoly and codify a new paradigm of choice and competition. When I read the new Section 254, however, I see that its philosophy and substance have more in common with the old universal service myths of the regulated monopoly era than with the new realities of competition and market diversity.

This represents a problem, because to help low-income consumers we must pay careful attention to the specific economic and technological realities of the new environment.

As far as low-income consumers are concerned, the key principles to consider are these:

- 1) The growing heterogeneity of access;
- 2) The primacy of usage costs over access costs in governing the affordability of service;
- 3) The importance of credit cards and credit-worthiness in mediating access to telecommunications networks.

1) Access has become heterogeneous.

The old universal service policy was based on wireline voice telephone networks. Voice telephone service was simple, homogeneous, and uniform. Access was essentially a binary variable: either you were on the network (i.e., you had a residential telephone line) or you were not.

Today, telecom access is heterogeneous. There is a broad spectrum of access levels, and a very wide range of information transmitting and processing capabilities. At one extreme, there is total isolation; at the other, there is the user with a cellular phone and the full complement of answering machines, computers, and fax machines. But there are many possibilities in between: payphones, pagers, work phones, voice mailboxes, email accounts, etc.

Affordability, too, is a matter of degree. A telephone subscription is one of many options in a household budget. Cable TV or a home PC are other options. The market is making the range of choices more diverse. Granted, low-income families have a far more restricted range of choices than affluent families. But they do make choices about where they want to be on the continuum of access, and their preferences are not uniform. To some, the absence of a telephone represents deprivation; to others, it is just an inconvenience. To some, being cut off from cable television might represent a worse form of isolation than no telephone.

Any universal service policy which does not recognize these facts is bound to be a poor one. Such a policy will end up subsidizing services that many people don't want, or that don't make sense given their particular circumstances. Worst of all, it will send the wrong signals to the suppliers of services. Universal service subsidies must not encourage suppliers to expand the

¹ Mueller, Milton. 1996. *Universal Service: Interconnection, Competition, and Monopoly in the Making of the American Telephone System*. Washington, DC: MIT Press/AEI Series on Telecommunications Deregulation.

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output of more expensive traditional services at the expense of developing new possibilities, such as two-way paging or card-based access, that may address the problems of restricted access more efficiently.

2) Usage costs are more important to affordability than access costs.

The focus of the most recent universal service policy debate has been on the *price of local telephone access*. Affordability has been equated with the monthly charges for basic local telephone service. Policy debate centered on how to finance the subsidies required to keep local rates "affordable." In fact, a number of recent studies, in D.C., California, New Jersey, and Texas, indicate that costs associated with usage are the most important barriers to keeping low income people on the network. This fact makes the old universal service paradigm irrelevant. Subsidizing the monthly rental rate is not going to change much. But how are you going to subsidize different usage rates for different categories of people? Can universal service be defined in terms of levels of usage? Just as food stamps require some state control of what is purchased, wouldn't usage subsidies give the government too much control over how low-income people use their telephones or other communications equipment?

3) Credit as the key to access.

As things stand now, telecommunications access is the equivalent of an unlimited line of credit. In contrast to credit cards, users are not given an explicit credit limit, and individual transactions are not verified (except in advanced mobile services). As the features and capabilities of the public network increase, the amount of money that can be spent using the network also increases. As this occurs, we increase the risk that some consumers will spend beyond their means. Under these circumstances the providers of service must protect themselves against uncollectable bills or bad credit risks. The key issue in universal service policy is how to maximize access while minimizing credit risk.

In the future, telecommunications access will start to look a lot like getting access to a credit card. We already see an enormous expansion in various forms of card-based access, from debit cards for international calling to credit cards for long distance companies and SIM cards in cellular phones. This will require a comprehensive, national reformulation of policies regarding disconnection, billing and collection, and credit risk management. (Privacy issues are also implicated here, but that goes beyond the scope of this meeting.) Here again, the idea of a traditional universal service subsidy delivered through the pricing structure of the service provider is irrelevant at best.

How Should the FCC Respond?

I will make two simple suggestions about how to pursue universal service objectives. These are not intended to be exhaustive; they are points that may not be emphasized enough by others.

1. Promote Competition.

Competition is one of the most powerful tools at your disposal in promoting universal service. Historical research has shown that the tremendous US lead in telephone penetration and geographic scope is attributable to the early period of telephone competition, not to regulatory subsidies. Contemporary research shows that *competition stimulates more rapid infrastructure expansion and modernization*. Competition will reduce usage charges. As the number of local

access providers grow, low-income users will have more choices, and lower usage prices. Competition for subscribers will also increase the willingness of suppliers to assume credit risk, while encouraging the development of technology and service offerings that optimize the trade-off between access and credit risk.

Frankly, how the FCC handles cable-telco-wireless competition and interconnection is going to have a lot more impact on the universality of access than any artificial, legally mandated definition of universal service.

2. Strengthen consumer protection regulation.

Competition can also lead to the exploitation of poorly informed consumers. Rather than creating elaborate new subsidy mechanisms, the FCC should concentrate on identifying these kinds of abuses, and pursue them vigorously. Fly-by-night payphone operators with extortionate long distance rates constitute a major problem in inner cities. Disconnection policies can be altered in ways that improve access without imposing unacceptable risks on local providers. Network externalities can be exploited by competing networks in ways that unfairly increase consumers' costs. On the whole, these kinds of activist policies will do more to keep telecommunications services affordable to low income consumers than anything else.

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Universal service has been a longstanding theme in Dr. Mueller's research. He is the author of Universal Service: Interconnection, Competition, and Monopoly in the Making of the American Telephone System, published by the MIT Press/AEI Series on Telecommunications Deregulation (1996). With his colleague Dr. Jorge R. Schement, Mueller conducted a study of low-income telephone usage and phoneless households in Camden, New Jersey. The study is published as "Universal Service from the Bottom Up: A study of telecommunications access in Camden, New Jersey." The Information Society Vol. 12, No. 3 (April 1996).